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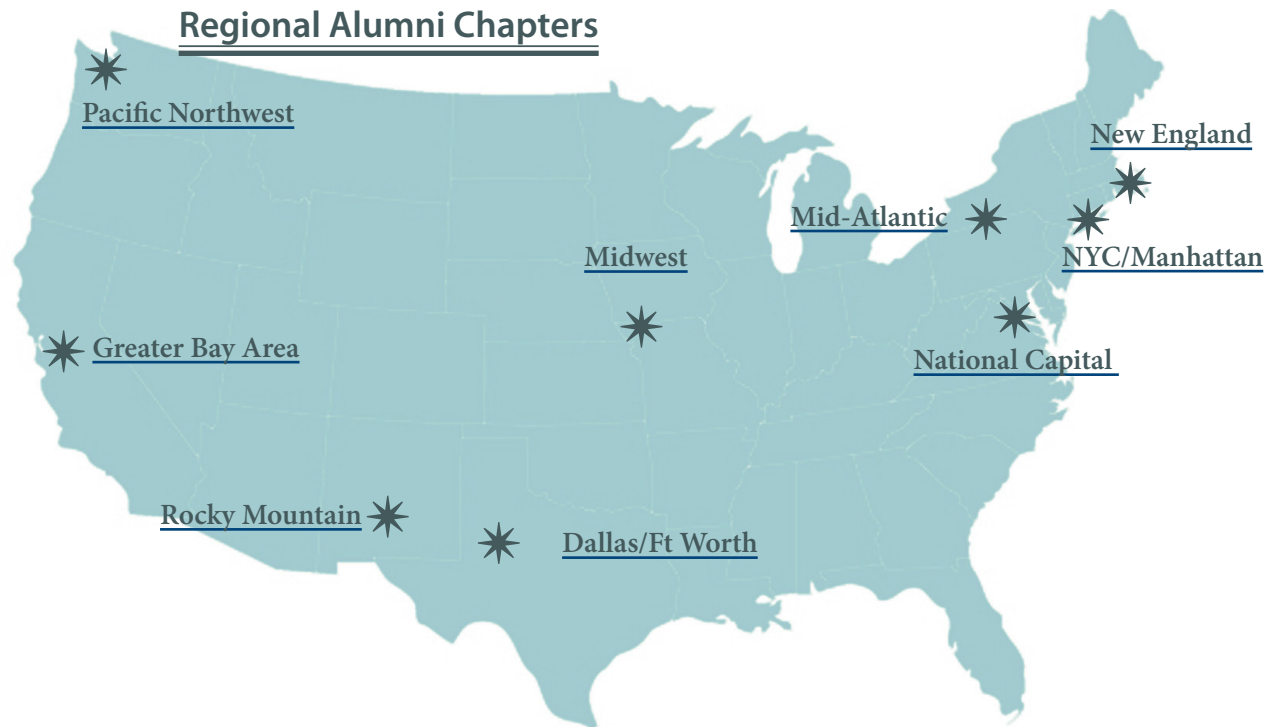
Watermark

The Alumni Magazine of the Center for Homeland Defense and Security



CHDS Students Craft Drone Policy • Karimi Employs CHDS Master's Curriculum in His Agency's Training • APEX 2015 • Profile: Dr. Carol Cunningham • DHS Delivers Improved Critical Infrastructure Protection IT • Presentation by Principal Deputy Director of National Intelligence O'Sullivan Highlights FCLP 11 • Twing Assumes Managing Editor Duties at Homeland Security Affairs • Turner Helps International Team Bring EOC, Emergency Management Concepts to Burma • MacLean is New Chief of U.S. Park Police • Music and Tech Giants Agree: Failure is Critical to Success • CHDS Debut at San Francisco St. Patrick's Day Parade

Regional Alumni Chapters



Regional Chapters Update: NCR Alumni Chapter Tours Interior Department

About 20 National Capital Region CHDS alumni convened at the U.S. Department of Interior (DOI) on March 25 to learn about the agency's extensive and diverse national law enforcement mission.

The gathering began with an hour-long tour of the murals, shown right, throughout the Department's historic building in downtown Washington, D.C. Attendees learned the significance of select murals that were created as a result of President Franklin Delano Roosevelt's New Deal and were painted by some of the most prominent American artists of the 1930s.



Alumni proceeded to the South Penthouse Suite, featuring expansive views of the city, where they learned about DOI's law enforcement program. The discussion began with an introduction by Jim Gallagher, CHDS master's degree alumnus and event host, who serves as the Assistant Director for DOI's Office of Law Enforcement and Security.

Attendees then heard from the Director of the Office of Law Enforcement and Security, Harry Humbert, who provided an overview of the far-ranging DOI LE mission. United States Park Police Assistant Chief Patrick Smith discussed law enforcement in the national park system, responsible for the security of 281 million national park visitors a year. Finally, alumni learned about the unique challenges of policing in Indian Country from Misty Lakota, a police chief within the Bureau of Indian Affairs Office of Justice Services.

The March event was the first of several planned alumni events in the National Capital Region during the year.

On the Cover:

The main building of the world famous Hotel Del Monte in Monterey, California, was destroyed by fire for the second time in 1924. Architects Lewis Hobart and Clarence Tantau of San Francisco redesigned the hotel, replacing the wooden Victorian building with a concrete Mediterranean style structure. In keeping with the new style of the hotel, and as a fire prevention measure, various types of tile were used extensively throughout the building on the roof, for the floors and as decorative elements. All the tiles were made of California clay by Gladding, McBean & Co., a California business established in 1875. The hotel was reopened in 1926.

The hotel is now Herrmann Hall, and the hotel grounds are the campus of the Naval Postgraduate School. This fountain is in the former dining room of the hotel, now known as the McNitt Ballroom.

Message from CHDS Director **Glen Woodbury**

Dear Friends,

As all of you well know, homeland security is an ever-evolving challenge of moving targets and emerging issues.

That notion was fully reflected by the content at the 2015 Alumni Professional and Education Exchange (APEX) that drew a record number of participants March 4-5. From traditional topics to emerging issues, this year's continuing education event illustrated CHDS' commitment to piercing the most current topics facing our professions.

We relied in large part on the Center's own experts who provided insights into issues facing the nation: international cyber-crime, the Islamic State of Syria and Iraq, global water supply, pandemics and civil unrest.

The CHDS classroom continues incubating original research and nurturing collaboration. Current students Gregg Favre and Monica Manzella used a course assignment to write a model drone policy for state legislatures and local governments. Masters' degree alumni Michael Brody and Christy Riccardi were part of collaborative policy-making that resulted in improved information technology and information-sharing at the DHS National Protection and Programs Directorate Office of Infrastructure Protection. We also check in with Executive Leaders Program graduate John MacLean, who took over earlier this year as Chief of the United States Park Police. We will show how a CHDS instructor, Dr. Kathleen Kiernan, draws upon non-traditional expertise, the recording industry and technology in this case, to push students to think outside their professional silos.

Since its inception, the CHDS Homeland Security Affairs journal has provided peer-reviewed academic rigor to the homeland security enterprise. Alis Gumbiner was instrumental in making the Journal the preeminent publication for emerging thought in the field. We say goodbye to Alis while meeting new managing editor Stephen Twing.

With summer fast approaching and homeland security hotspots burning across the world, we hope you stay engaged and enjoy the Spring 2015 edition of Watermark, the alumni magazine of CHDS.

Truly yours,

Glen Woodbury
Executive Director

In this Issue of

Watermark

Alumni Chapters: News and Updates	II
CHDS Students Craft Drone Policy	02
ELP Duo Studies UAV Use in Fire Service	03
Karimi Employs CHDS Master's Curriculum in His Agency's Training	04
APEX 2015	05
FRRG First Responder Spotlight Profiles CHDS Alumnae Dr. Carol Cunningham	12
DHS Unity of Effort Delivers Improved Critical Infrastructure Protection IT	14
Principal Deputy Director of National Intelligence O'Sullivan Presentation Highlights FCLP 11	15
Class Notes/Faculty Footnotes	16
Twing Assumes Managing Editor Duties at Homeland Security Affairs	18
Turner Helps International Team Bring National EOC, Emergency Management Concepts to Burma	19
MacLean is New Chief of U.S. Park Police	20
Music and Tech Giants Agree: Failure is Critical to Success	21
CHDS Photo Album	22
CHDS Debut at San Francisco St. Patrick's Day Parade	23
Kudos and Connections	24



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Spring 2015 Volume Six, Issue One

How can drones be used to enhance homeland security and public and responder safety while addressing privacy and constitutional concerns? CHDS students and alumni are exploring and engaging the challenges posed by this new technology.

CHDS Students Craft Model Drone Policy

A patchwork of state laws and absence of clear federal direction regarding Unmanned Aerial Vehicles (UAV) has left policy gaps that two Master's Degree Program students at the Center for Homeland Defense and Security master's are trying to fill.

As with any disruptive technology, the popular ascent of unmanned aerial vehicles, commonly referred to as drones or UAVs, is posing both potential for public safety agencies coupled with policy concerns and especially worries about constitutional protections under the fourth amendment.

Captain Gregg Favre of the St. Louis Fire Department and Monica Manzella, Assistant City Attorney in New Orleans, wrote their paper, "Through the Looking Glass: Public Safety Agencies Drone Policy and the Fourth Amendment," for the Technology for Homeland Security course.

"A lot of agencies are not using drones because of constitutional concerns," Manzella said. "My interest was what those privacy concerns were and why agencies are not using drones."

The issue was relevant to both students' jurisdictions, making the assessment a real-world research project that is a characteristic of CHDS education.

"St. Louis Fire is one of many agencies exploring this and entering its minefield of policy and opinions," Favre said. "It's difficult for municipalities and the average administrator in public safety to wrap their hands around what the good guys need in terms of policy and equipment."

Guidance from federal agencies has been scant and a scheduled September 2015 FAA policy on UAVs is expected to generally address commercial aviation issues rather than constitutional questions surrounding their use. That has left states to grapple with the problem and while many have passed legislation, laws vary as to where and how UAVs may be used.



"A lot of agencies are not using drones because of constitutional concerns. My interest was what those privacy concerns were and why agencies are not using drones."

Monica Manzella
Assistant City Attorney, New Orleans

"A lot of public safety guidance on this issue has been muddled by the guy down the street who flies too close to someone's bedroom window. That taints the view of how people see drones."

Gregg Favre
Captain, St. Louis Fire Department



The paper traces case law from the solidifying of privacy rights under the Fourth Amendment in 1967 to subsequent rulings on aerial surveillance under that concept, as well as more recent interpretations related to the rise of technology.

"It's interesting how you have all this case law that is all over the place, but looking at our paper you reasonably predict where the issue is going," Manzella said.

Beyond Fourth Amendment issues, the paper notes the public's perception and qualms about unmanned vehicles flying overhead. Generally speaking, more than 60 percent of respondents to a Reuters/Ipsos poll supported using drones to solve or deter crime. That level of support is more varied when the question is more specific: 83 percent of respondents in a Monmouth University poll supported UAV use for search and rescue missions, but 21 percent for basic traffic enforcement. The one of the greatest levels of support regards judicial oversight of drone use: 76 percent support it.

"A lot of public safety guidance on this issue has been muddled by the guy down the street who flies too close to someone's bedroom window," Favre quipped. "That taints the view of how people see drones."

Favre and Manzella offer a model that can be adopted by local and state agencies that they believe will pass constitutional muster while allowing professionals in the field flexibility to operate.

The model policy set forth by Favre and Manzella establishes framework generally requiring warrants for using information gleaned from UAVs, excepting certain types of emergencies, as well as rules for collecting, storing, retaining and sharing information. The model further sets punitive measures for violations and calls for third-party audits to ensure agencies are abiding by their policies.

In crafting their document, the pair found they were able to complement one another's professional background, something CHDS strives to accomplish in its student composition. In this case, Favre was able to offer insight into front-line first responders' needs while Manzella could synthesize the legal challenges.

"There were times Monica could tell me what was unconstitutional and there were times we talked about policy and she would make a suggestion I knew would not be practical in a day-to-day setting," Favre said. "I think we found nice middle ground, came to a conclusion and melded the perspectives into something solid. There was a lot of benefit for me to get out of my comfort zone and work with someone who has a dissimilar background and experience. It broadened my understanding of the issue and how I will address future problems."

Manzella echoed that view: "Gregg's perspective from his background definitely broadened how I view the UAV issue. In fact, the CHDS program has broadened how I approach legal issues."

ELP Duo Use Complementary Backgrounds in UAV Study

A career firefighter and long-time aviation researcher who formed a team while attending the Center for Homeland Defense and Security Executive Leaders Program are expanding their classroom study on drone use in the fire service to a scheduled presentation at the National Fire Protection Association's annual conference in June.

Yonkers, New York, Fire Chief John Flynn and Bart Elias of the Congressional Research Service are using their complementary operations-research experiences to explore how drones could benefit modern firefighting inexpensively while adhering to constitutional concerns and public leerness.

"That is one of the neat things ELP does," Elias said. "Everybody knows a little bit about different pieces. As you get to know each other you see synergies develop, people see things they can use in their own day-to-day operations."

Fire service professionals see a wealth of potential operational benefit owing to their affordability and the breadth of area they can cover, Flynn said.

"Reach, speed, safety, and cost - those are the real benefits for fire service and government agencies," he added.

Unmanned aerial vehicles, known as UAVs, proved valuable in providing situational awareness to incident commanders during the August 2013 wildland fires in Yosemite National Park in California where they were utilized by the California National Guard, for example.

Drones can provide similar benefit to flood response as well as large-scale searches in remote areas, from mountainous peaks to expansive bodies of water, which would typically take a labor-intensive trek on the part of a search and rescue team.

In more urban areas, unmanned aircraft can provide incident commanders in the fire service with what is called a "six-sided" view of a burning structure as the commander manages assets and staffing.

"A fire chief is always trying to maintain situational awareness," Flynn said. "It's difficult to do in urban areas. A drone can do that very quickly and you're not endangering lives."

Another safety and cost benefit would be for hazardous materials, weapons of mass destruction, and nuclear energy sites, Flynn said. Drones could conduct real-time atmospheric tests whereas traditional practice is to have responders don protective equipment, manually check meters for toxic emissions and then communicate back to the command post.

"If you have a drone with the ability to do airborne sensing it can communicate the message back quicker of what we are dealing with," Flynn said.

As with any disruptive technology, UAV technology brims with as much constitutional concern as it does potential. Public safety agencies thus far have been hesitant to employ drones stemming from privacy issues, including data captured passively or as an unintended target of an investigation, as well as the duration of how long information captured by a drone is stored.

Fire agencies that wish to use material recorded by drones for training purposes, for example, may conflict with privacy rights of victims from those events, Elias noted.



"Reach, speed, safety, and cost - those are the real benefits for fire service and government agencies."

*John Flynn, Fire Chief, Yonkers, New York
discussing drone use*

Another challenge in the proliferation of drones is that hobbyists and even small news organizations on shoestring budgets can afford them, which could crowd the space above emergency scenes and hinder operations.

"Those drones could be on scene when firefighters arrive to set up the incident command," Elias said.

Public safety agencies in the U.S. have been slower to embrace unmanned aircraft systems (UAS) than their peers in Australia and Canada and Federal Aviation Administration officials have lagged in regulating the aircraft. Optimistically, a framework for allowing more routine use of drones by public service agencies could be in place by the end of 2015 under the

FAA's UAS integration plan, but details of how this would work have not yet been made public.

FAA published proposed rules for commercial operators of small UAS in February 2015, but it will take some time before those are cast into a final set of regulations. FAA may continue to apply the brakes on drone use if lingering safety concerns are not adequately addressed.

Legislation of various ilk has been introduced in Congress as well as at the state and local levels as elected officials struggle to fill the regulator void. (See accompanying story or read it online: www.chds.us/?pr&id=3283).

A recent Department of Transportation study forecasts federal and state sectors will be operating up to 36,000 unmanned aerial systems by 2035.

"I think there will be a tipping point where the fire services will really see the value of having these eyes in the skies," Elias said.

The pair is scheduled to present at the National Fire Protection Association Conference and Expo June 20-22 at McCormick Place in Chicago (see www.nfpa.org/training/conference).

Karimi Employs CHDS Master's Curriculum in His Agency's Training

Bijan Karimi isn't waiting until graduation to spread the message of the Center for Homeland Defense and Security. He's sharing it as he goes.

In a different take on the CHDS multiplier effect, the San Francisco Department of Emergency Management Assistant Deputy Director has shared the lessons learned in his master's degree studies in the form of post-In-Residence briefings and by modifying the way his office conducts training.

Spreading CHDS concepts, the "multiplier effect," has long been a piece of the Center's mission, with the hope graduates would in turn teach and recruit colleagues. Also, the University and Agency Partnership Initiative freely shares Center curriculum with colleges across the country to extend the reach of homeland security education. Karimi has fashioned his own version of the idea.



Bijan Karimi

"I'm doing my best to create the same dynamic discussions the CHDS instructors are providing. The goal is not to come to a solution but to get a robust discussion going. I know they are getting something out of the brief when they continue the discussion over lunch or someone wants to borrow one of my course books."

Bijan Karimi
Assistant Deputy Director

San Francisco Department of Emergency Management

Prior to joining CHDS, Karimi introduced a standard practice to his team of briefing co-workers about what they learned at a convention or conference. The practice requires the person to think critically about what was learned and apply the knowledge to problems faced by the team.

When he started the CHDS program he did the same for his own coursework. "It helps me better understand and apply the concepts we are learning in class," Karimi said. "For me, I like to lead by example. If I'm out for two weeks and everyone is covering for me, I want my team to benefit from my CHDS participation. The only way they will learn and buy into new ideas is if they understand the underlying concepts."

So, a training session for emergency management professionals may include discussions on drone use by the military, developing an understanding of terrorist organizations or becoming attuned to how the homeland security enterprise is viewed by the public.

"I'm doing my best to create the same dynamic discussions the CHDS instructors are providing. It helps my own team to recognize the complex challenges we have in emergency management," he said. "The goal is not to come to a solution but to get a robust discussion going. I know they are getting something out of the brief when they continue the discussion over lunch or someone wants to borrow one of my course books."

Among the courses that have been used as a training foundation:

- The "Unconventional Threat to Homeland Security" course was helpful because it increased his overall understanding of terrorism and why people become terrorists. "It is a much more complex situation than the media portrays."
- The "Technology for Homeland Security" class was helpful in targeting and discussing emerging technologies and their potential impact on cybersecurity risks.
- "Critical Infrastructure: Vulnerability Analysis and Protection" and the concept of "key performance indicators", or KPI, was also beneficial. The concept focuses on how to identify the right benchmarks to measure and define the success of an organization or activity.

With that information from CHDS, Karimi is modifying San Francisco's citywide emergency management training program to include performance measures that focus on how well employees retain information. He is drawing on lessons learned in the classroom textbook, "Make it Stick."

"After developing KPIs for a class project I realized how this can be applied to our training program," Karimi said of KPI. "I realized our success is less about the number of students we teach and more about how long they remember what we have taught them. We should be measuring retention, so how do we educate people in way more compatible with adult learning and make the information stick?"

Employees are trained using both traditional pedantic approaches, as well as more progressive CHDS-style presentations. Trainees are then given a short quiz at 10 and 30 day intervals to cement the learning points and measure how much they recall to demonstrate the benefits of the new techniques.

"The book said not to make learning too easy," Karimi said. "Making it challenging cultivates the mental pathways and primes the brain for learning."

More personally, CHDS education has expanded Karimi's view beyond his own profession.

"It's expanded my understanding and appreciation of the complexity of the homeland security enterprise," he noted. "Our instructors guide us as we explore new topics and I also learn a tremendous amount from my classmates. Our discussions draw on hundreds of years of collective experience and you can't get that anywhere else."



APEX 2015

Intelligence Sharing in the U.S. • Engagement During Civil Unrest • Water & Future Security Priorities • Emerging Arctic Security Issues • Transnational Cyber Crime • ISIS & Extremist Groups • Ebola & Pandemic Outbreaks

Almost 200 alumni, faculty and staff attended the 2015 Center for Homeland Defense and Security Alumni Professional Education Exchange (APEX) held March 4-5 in the Barbara McNitt Ballroom at the Naval Postgraduate School.

The annual event is a continuing education program that helps CHDS alumni stay abreast of homeland security issues while also reinforcing the Center's alumni network. Graduates of the Center's master's degree and all of its executive programs are invited and can earn NPS continuing education credits for participating.

NPS President, Admiral Ronald Route (Ret.), opened the first day with welcoming remarks while Rear Admiral (Ret.) Rosanne LeVitre, Chairman, National Intelligence Management Council, Office of the Director of National Intelligence, spoke in the opening session on the State of Intelligence and Information Sharing in the U.S.

Educational sessions were conducted during the two days ranging from practical issues such as strategies for engaging during civil unrest to the global implications of the limited supply of water in an ever more populous world.

Secret Service Assistant Director Edward Lowery, a CHDS master's degree graduate, discussed transnational cybercrime and the major players. The most costly threat, he said, was from Russian-speaking criminals who dominate the market for stolen credit cards, Social Security information and other lucrative schemes.

NPS National Security Affairs Chairman Dr. Mohammed Hafez spoke about the rise of the Islamic State in Syria and Iraq, and what the group's violent ascent means for U.S. policy makers. The group now controls areas in eastern Syria and western Iraq that are roughly the size of Maine, Hafez noted, land gained through brutal violence against armed foes as well as city residents and villagers.

Boston Police Commissioner William Evans, a graduate of the CHDS Executive Leaders Program, and Dallas Police Department Major Stephen Geron, a master's degree alumnus, discussed engaging the public during protests, such as the Occupy Movement of 2012. Managing civil unrest returned to the headlines in 2014 as protest over police tactics erupted in Ferguson, Missouri.

Global water supply is linked to almost all aspects of society, said Dr. Jim Tindall, a CHDS master's degree graduate. Energy, food supply, sanitation and almost every other aspect of life necessitates water consumption. As more countries industrialize and populations grow, competition for the resource is expected to become intense.

Even as water supply diminishes, a new potential homeland security issue is brewing in the Arctic. In 2012, the region had 40 percent less ice compared with 1992, said U.S. Coast Guard Captain Jonathan Spaner. His presentation discussed the implications of how melting ice in the region is opening shipping lanes, changing the landscape, altering fisheries and whetting the appetite of countries seeking to benefit from the area's natural resources.

Spaner related the story of a German cruise ship that unexpectedly showed up in Barrow, Alaska, surprising local officials and posing a homeland security concern.

"We have a new ocean opening before our very eyes," Spaner said.

Pandemic viruses and the past year's Ebola panic was the topic of a panel discussion led by CHDS master's degree alumni Robert Hutchinson and Deanne Criswell and Executive Leaders Program graduate Dr. Carol Cunningham. Master's alum Hutchison exemplified the collaborative work helpful in solving issues that transcend borders and state lines.

The two-day event was a successful representation of the CHDS leading-edge educational approach, said CHDS Association President and master's alumnus Michael Biasotti.

"APEX provided an opportunity for rich discussion and debate on current and emerging issues facing the homeland security enterprise," Biasotti said. "Importantly, the workshop reinforces the network of CHDS professionals that inform an ever-growing cadre of professionals keeping our nation safe."

APEX 2015 coverage continues with overviews of presentations made by CHDS alumni and instructor M. Hafez >>>



William "Billy" Evans

Stephen "Max" Geron

Strategies for Engaging During Civil Unrest

Speak softly and carry a big stick, Theodore Roosevelt once said.

That was long before the days of mass protests such as the 2011 Occupy Movement, but it may bear a lesson to elected officials and law enforcement agencies when dealing with civil unrest.

In many cases, an engaging community police approach is a more effective tactic than SWAT teams showing up in full riot gear that some say depersonalizes the human behind the shield.

That was the message during an APEX session led by Boston Police Commissioner William "Billy" Evans and Dallas Police Major Max Geron on the topic of civil unrest.

"What we took out of the Occupy Movement was that the hard tactics and militaristic approach didn't work," Evans said. "The key to our success was building relationships with the kids in the camp."

Managing unrest is an exercise in balancing constitutional protections and public safety, Geron noted. He categorized what he saw as some of the shortcomings in response by police and actions by protestors: a lack of negotiated management in which authorities outline expectations of behavior in return for allowing the communications of the protests to continue; lack of a cohesive message from local governments and law enforcement; allowing people to return after evictions from a site; degradation of camp conditions, such as an influx of rodents and lack of sanitation.

The latter was the primary cause of each of the movements' shutdown as a mix of humanity, rotting food and rodents began to percolate.

Cities with a prominent Occupy Movement can provide lessons on strategy, Geron said. Oakland, California, for example, allowed protesters back in after a site had been cleared, exacerbating the tension. The city's elected officials also sent mixed communications from law enforcement, impeding a unified message. Oakland subsequently saw some of the more violent actions stemming from the movement.

"The most contentious, the most violent of any of the protests was in Oakland," Geron observed.

Portland, Oregon, and Dallas took the negotiated approach. In Dallas, the city and protest leaders signed a contract. The public was moved to a different site and was called upon to abide by agreed-upon rules and the city agreed to let the protest proceed. In Portland, police officers were handpicked to work the protest lines, where steely patience is needed to withstand the onslaught of insults.

Importantly, agencies should capitalize on social media, using it in their daily operations, to get ahead of rumors swirling among the masses.

"You have to engage and you need to do that before the protest happens," Geron said.

That doesn't mean sending uniformed officers out with tulips in their holsters. The Boston Police Department did not don military-style gear, but the equipment was always nearby if needed, Evans noted. Boston police did jail 141 at one point.

"Our policy was to kill them with kindness. They hate that," Evans said. "We didn't come with helmets. We didn't come with sticks. We talked our way through it and locked up those 141 people without complaints."



Evans speaks with Occupy protestors in Boston

Agencies should capitalize on social media, using it in their daily operations, to get ahead of rumors swirling among the masses. "You have to engage and you need to do that before the protest happens."

Max Geron
Major, Dallas Police Department
MA1205/1206

“What we took out of the Occupy Movement was that the hard tactics and militaristic approach didn’t work. The key to our success was building relationships with the kids in the camp.”

*Billy Evans
Boston Police Commissioner
ELP1202*

Boston was able to draw on years of experience in crowd control owing to its numerous public events and successful sports teams. And, Evans personally met with protest leaders on a regular basis as well as exchanging cell phone numbers with some to build bonds.

“It’s more about doing your homework ahead of time,” Evans said.

Geron agreed, saying the key was strategic planning. Drawing on his CHDS thesis, Geron urged first responders to view modern protests through complexity theory and “sense-making” framework, such as the Cynefin framework taught in the Center’s coursework.

“You need to probe, sense and respond,” Geron said. “You need to engage and you need to do that before the protest happens.”



Dr. James Tindall

Master’s Alumnus Sounds Water Warning

It’s time for homeland security professionals to get serious about water.

Terrorists, pandemics and natural disasters typically dominate the headlines, but a more insidious threat poses an equal amount of harm - global water supply, says Center for Homeland Defense and Security graduate and scholar Dr. James Tindall.

“It’s an issue that directly affects first responders,” Tindall said. “You haven’t seen angry people until you see them thirsty, hungry and dirty.”

Tindall, who works in the National Research Program for the U.S. DOI-U.S. Geological Survey, spoke at the 2015 CHDS Alumni Professional Education Exchange March 4 regarding the growing scarcity of water and the security issues associated with it, just weeks before California Gov. Jerry Brown introduced sweeping conservation measures in drought-plagued California.

His message was sobering yet simple: water supply is a global issue that affects the whole of the homeland security enterprise. Water is the top security, economic, and social risk globally and the primary driver that allows economic sustainability and thus fosters countries, cultures, and politics. Like it or not, water has become the key security driver for homeland and national security and will likely hold this spot for the next two decades.

The resource interfaces with the spectrum of the homeland security enterprise – critical infrastructure, terrorism, civil unrest, planning and local-state-federal cooperation.

“Water supply is the greatest national security threat. It is so vulnerable, yet essential to life,” Tindall noted.

Water is intertwined with just about every segment of the economy. Underlying all the impacts is the correlation between water and energy, both of which are essential ingredients to food supply. “If you want energy you need water for cooling,” he noted. “If you want water, you need energy for distribution.”

He offered a series of interrelated examples on this vital ingredient to living. A single cup of coffee requires 32 gallons to produce from farm to table, Tindall noted. And the resource’s importance to food production goes beyond irrigation and production to transport. As an example he posed the possibility of decreased water flows, due to droughts, along the Mississippi River that would reverberate across the Western Hemisphere by limiting or closing a well-traveled waterway for the Midwest’s and South’s agricultural products.

As more countries industrialize and populations grow, competition for the resource is expected to intensify. Add to that potential climate change and long-term droughts occurring in places like Brazil and the southwestern United States, and the limited supply could eventually lead to civil unrest that at some point homeland security professionals may be called upon to quell.

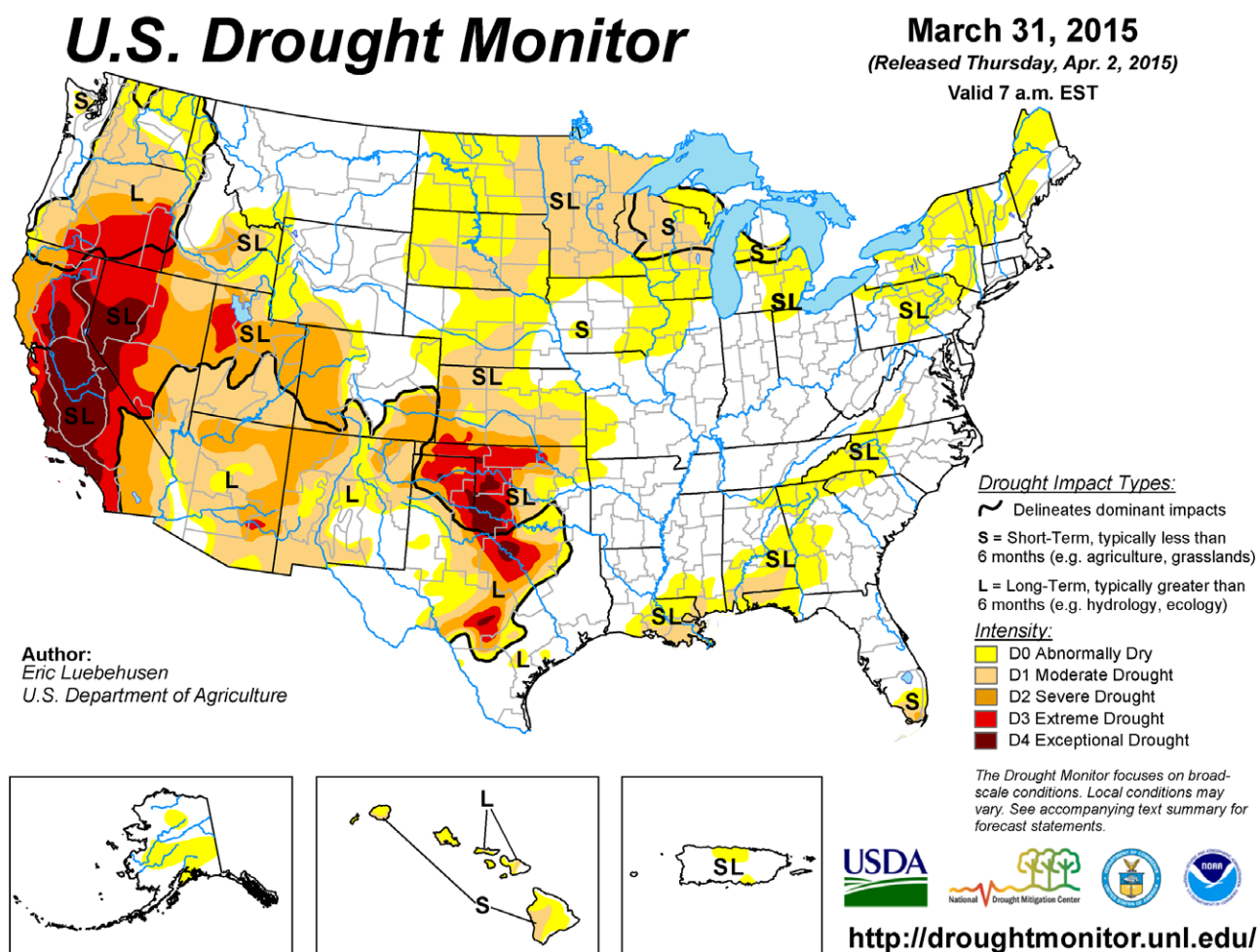
Increasingly, water supply is used as a weapon. Water blackmail for political gain is a useful tool that can harm public sanitation, food supply and simple daily living chores. Try cooking without water. For example, the Islamic State of Iraq and Syria (ISIS) targeted the Mosul Dam for takeover, giving it the lock on a broad swath of the water supply, before the group was dislodged in August 2014. ISIS has carried out more than 40 successful attacks on water and energy infrastructure in 2014 -2015, affecting the lives of almost 7 million people.

“By controlling a strategic asset like water, a non-state actor with limited funds, resources and logistical support can significantly increase capacity to tackle its opponents,” Tindall noted. “A sophisticated coordinated terrorist attack on a key water infrastructure may have similar effects as a natural disaster.”

Tindall discussed a pattern recognition model that could one day help decision-makers plan for crises related to water shortfalls.

“By controlling a strategic asset like water, a non-state actor with limited funds, resources and logistical support can significantly increase capacity to tackle its opponents. A sophisticated coordinated terrorist attack on a key water infrastructure may have similar effects as a natural disaster.”

Dr. James Tindall
National Research Program, U.S. DOI-U.S. Geological Survey
MA0501/0502



He and his peers have privately developed a coupled model that analyzes the hydrologic cycle of evaporation, condensation and precipitation, all of which are required for the other to occur.

The model enables scientists to look at one area, say Denver, in relationship to another area, say Lake Mead in Nevada. If the former becomes drier, what becomes of the latter? Then, how does that pattern relate to another area, such as Los Angeles where much of the water stored at Lake Mead would be transported? The model can be scaled from local to regional to national within a country and, it is also a forecast model that predicts climate change within a region seven years forward. For example, it projected the California, Southwest and Midwest droughts that have occurred the past two years about 5-6 years ago. No similar model currently exists to their knowledge.

The current situation in California illustrates how the cycle can

be disrupted.

“We are seeing that in California,” he said. “This is a natural pattern. The drier it gets, the less evaporation occurs. There is not much evaporating from the plants because they are storing it instead. When the pattern continues, things get out of whack. And, if the pattern continues longer-term, could potentially lead to desertification issues (which are very difficult to mitigate) and to occurrences such as the 1930s Dust Bowl in the U.S.”

He urged attendees to begin planning for water supply emergencies and to conduct emergency exercises centered on water infrastructure.

“Have you been doing table-tops on this?” Tindall asked. “If not, you want to start. Water supply shortages will cause crime, violence and civil unrest.”

Cyber Criminals Follow the Money



Ed Lowery

“International cooperation is not nearly as effective as it needs to be. In many instances there are no laws on the books to handle the violations we are investigating. You need cooperation and the ability to work across borders.”

*Edward Lowery,
Assistant Director, Secret Service
MA1303/1304*

While the Chinese and Russian governments are the most often suspected nations mentioned when discussing cyberattacks, the more costly threat to the United States are shadowy tech-savvy mobsters looking for bling, speed boats and vacation estates more than state secrets.

That was part of the message at the CHDS Alumni Professional Education Exchange during a presentation by Edward Lowery, master's degree graduate and Secret Service Assistant Director.

Clandestine online chat rooms serve as a sort of cyber clearing house for a fraternity of criminals. Applicants need street crime credibility to gain access, but once there Russian-speaking criminals can offer a wealth of stolen information and referrals to expertise for illicit activities. The major cyber-criminals reap monstrous rewards, living in rarified fashion that would embarrass traditional mobsters in the U.S.

The online networks comprise criminals specializing in breaching targeted systems, malware development and delivery, data exfiltration, and the ability to monetize the stolen information. Most importantly, they are able to launder money outside of international banking systems, he noted. And, with their wealth and the ease of Internet use, they can operate from anywhere, especially the beach houses some purchase to escape the motherland's brutal winters.

“Although there are attackers of all nationalities operating from many locations around the world, the most pervasive and sophisticated are predominately Russian-speaking and financially motivated, in our experience,” Lowery said. “They're not just sitting in St. Petersburg. They can be sitting in Spain.”

The quest for cyber riches was illustrated in an August 2014 hack into J.P. Morgan Chase. Although that intrusion may have affected 83 million households and businesses, it is a distant second to the Heartland Payment Systems intrusion that affected over 130 million victims and is estimated as the largest financial intrusion in history. A month after the J.P. Morgan intrusion, Home Depot suffered an attack that grabbed credit card data on an estimated 56 million customers.

Beyond national security worries, financial intrusions directly affect the average American resident. The loss of so-called “personally identifiable information,” or PII, can lead to identity theft and even loss of their life savings, a potentially recurring problem that could haunt a person for years.

The ability to cross multiple international borders during the commission of these crimes makes these cyber-criminals very difficult to investigate and prosecute. More international cooperation is crucial and there is great need for improvement.

“International cooperation is not nearly as effective as it needs to be,” Lowery said. “In many instances there are no laws on the books to handle the violations we are investigating. You need cooperation and the ability to work across borders.”

Though Russian-speaking cyber criminals are likely doing the hacking that does not mean there is no state sponsorship or that government systems aren't attractive targets. A little more than a month after APEX, media outlets reported that Russian operators were behind a State Department intrusion – via the tried and true “phishing” method, that may have spread into White House systems.

“Are there nation-states committing espionage? Absolutely,” Lowery said. “Have criminal networks been proxies for states? Sure, you'd be crazy not to think so. In many cases, the sophistication of these cyber criminals, and their networks, far surpass the capabilities of most nation states.”

Financial institutions were designated as a homeland security concern under Presidential Policy Directive 21. The sector encompasses “18,800 federally insured depository institutions; thousands of providers of various investment products, including roughly 18,440 broker-dealer, investment adviser, and investment company complexes; providers of risk transfer products, including 7,948 domestic U.S. insurers; and many thousands of other credit and financing organizations.”

“We're not the only country facing this issue, it's just that our financial services sector offers the most return on the criminal's investment,” Lowery said.

Islamic State a Threat to U.S.



Dr. Mohammed Hafez

A long-term, multilateral commitment to Iraq, and possibly Syria, that supplements military operations with economic development is needed to defeat the deadly Islamic State in Iraq and Syria, NPS National Security Affairs Chairman Dr. Mohammed Hafez said during the 2015 CHDS Alumni Professional and Education Exchange (APEX).

While a war-weary American public may loathe entering yet another Middle East conflict, Hafez contended preventing another 9/11 style attack will require direct U.S. engagement beyond current air support.

The conditions are similar to conditions in the 1990s in Sudan and Afghanistan where Osama bin Laden exploited a governance vacuum to revitalize al-Qaida as a terrorist force. Likewise, the Islamic State has carved out a lawless area where planning and executing attacks on American soil could thrive.

“When you have a safe haven with infrastructure and weapons, that gives terrorist groups the potential to grow and thrive,” Hafez said. “That’s what is happening in Syria and Iraq today. The fact they are creating a safe haven with lots of resources and huge vulnerable populations from which to recruit makes it a threat.”

Combating the threat will take a multi-lateral commitment not just from the United States but from European partners and nations

such as Turkey, while also committing long-term to economic development and counter-messaging radical ideology.

ISIS recruits foreign fighters from around the globe, including Western Europe and the United States, and the concern is some will return radicalized ready to attack at home. And, ISIS is promoting what Hafez called a “norm of violence” that is not only attracting youth, but challenging radical organizations such as al-Qaida on the Arabian Peninsula.

“Why ISIS is really a threat to the homeland here is it is stealing the limelight from al-Qaida,” Hafez said. “Today al-Qaida compares itself to ISIS. Competition breeds excess. It happens with computers, TVs and cars, and it also occurs with terrorism. Al-Qaida could potentially escalate its violence and that would be a threat.”

“When you have a safe haven with infrastructure and weapons, that gives terrorist groups the potential to grow and thrive. That’s what is happening in Syria and Iraq today. The fact they are creating a safe haven with lots of resources and huge vulnerable populations from which to recruit makes it a threat.”

Dr. Mohammed Hafez
Naval Postgraduate School National Security Affairs Chairman

While ISIS began making headlines during summer 2014 as it gained footholds, the group’s origins date from pre-invasion Iraq, Hafez said. He traced the Islamic State’s evolution to Jordanian Abu Musab al-Zarqawi, who fled Afghanistan for Iraq and founded Jama’at al-Tawhid wal-Jihad, or Monotheism and Holy War. A series of name changes ensued: to al-Qaida in Iraq in 2004; the Mujahidin Shura Council in 2006; Islamic State of Iraq in 2007.

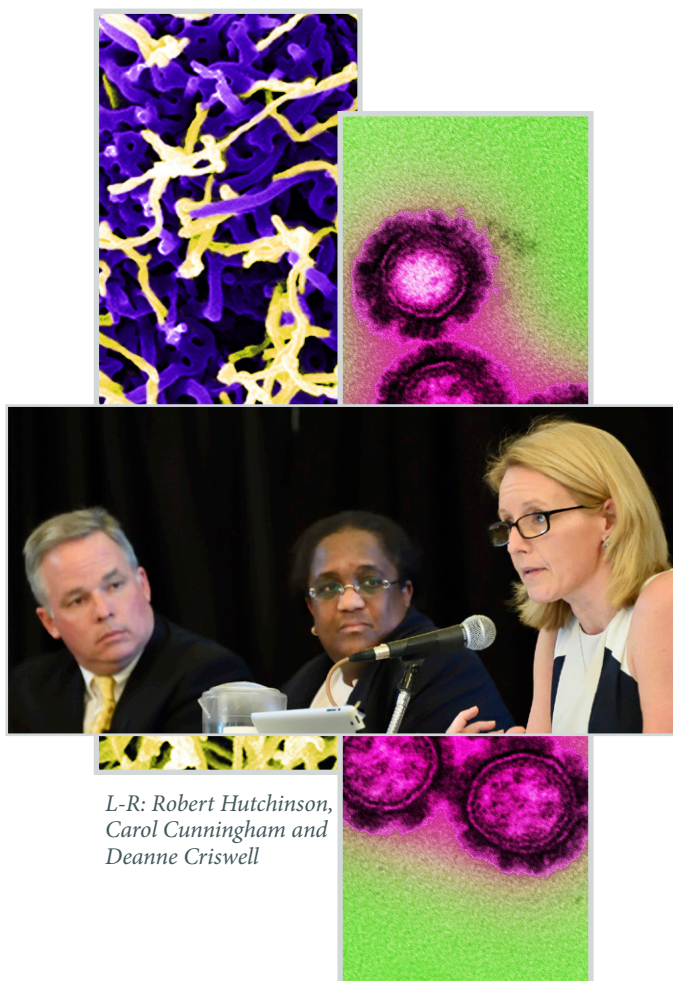
The Islamic State’s rise exploited key events of the Iraq War, the U.S. withdrawal and world events. Iraqi prisons such as Camp Bucca and Abu Ghraib provided fertile ground for low-level adherents to radicalize and re-group after leaving incarceration. By 2011, mass prison escapes were plaguing the country and allowed ISIS’ current leadership to rise to power. Meanwhile, the surge, or Sunni Awakening, had resulted in waning violence in most of the country, only to reignite with the ascent of ISIS against the backdrop of Arab Spring unrest.

“Interestingly, they pushed that group to the only place it could survive, Mosul,” Hafez observed. “That was the only major city in Iraq that did not have an awakening movement. That tells us it had some level of support there.”

And that summarizes much of the dilemma. Regime change in Libya has enabled an Islamic State presence there, and the fall of Assad in Syria could create the same type of milieu. Further complicating the situation are the regional ambitions of Shiite Iran placed against the concerns of regional Sunni power, Saudi Arabia.

“What’s really threatening to us is not that ISIS would attack us, but the fact they are creating a huge safe haven attracting fighters from all over the world,” Hafez said.

Ebola and Risk of Pandemic Outbreaks



L-R: Robert Hutchinson,
Carol Cunningham and
Deanne Criswell

The autumn 2014 Ebola outbreak that paralyzed West Africa and spread its tentacles to the United States exemplified the collaboration that is necessary across the homeland security enterprise, while also highlighting barriers and obstacles to reaching that practice.

Pandemic viruses and the past year's Ebola panic was the topic of a panel discussion at the 2014 Alumni Professional and Education Exchange led by CHDS master's degree alumni Robert Hutchinson and Deanne Criswell and Executive Leaders Program graduate Dr. Carol Cunningham.

Seven months later and the threat continues to rack up costs domestically – New Jersey officials reported in April that the state, home to one of the designated airports in the U.S. where travelers from affected African nations are filtered, spent \$2.6 billion since October 2104 on monitoring those passengers.

During the APEX presentation, master's alum Hutchinson exemplified the collaborative work helpful in solving issues that transcend borders and state lines. Hutchinson works as Deputy Special Agent in Charge for Immigration and Customs Enforcement and extensively researched pandemic threats and has been published in numerous professional publications as well as speaking on the topic both in the U.S. and abroad.

Hutchinson cited barriers between the public health and law enforcement professions in responding to pandemic threats, such as differing terminology, types of training and education, personnel organization and who guards the points of distribution for

medicines. He said the response community has room to improve. More planning, exercising and coordination of roles will be needed going forward.

"We know there will be another pathogenic threat out there other than Ebola," Hutchinson said. "Everything we were doing was reactive. We served behind the power curve the whole time."

As Medical Director with the Ohio Division of Medical Services, Cunningham saw first-hand the challenges posed by the threat of Ebola. While her department did not actually treat an Ebola patient, a Texas nurse on a visit to Akron, her native city, did later test positive. That led to state health officials monitoring more than 160 residents of the state for 21 days.

Among her lessons learned was the need for authoritative communication to overcome media-fueled hysteria. Also, giving the public an action to do in response, such as washing hands regularly, can help assuage fears, Cunningham said. She cited the necessity of crafting Crisis Standard of Care policies ahead of a pandemic threat and called for more EMS-centric training and education.

While the pandemic was considered a public health threat, much of the initial screenings rely on emergency medical professionals who must make quick decisions based on apparent symptoms.

"Our pace of medical decision-making and provision of medical care is faster than the growth in a Petri dish and often is performed at the speed of light," Cunningham noted in her presentation.

"Everything we were doing was reactive. We served behind the power curve the whole time."

*Robert Hutchinson
Deputy Special Agent in Charge
U.S. Immigration and Customs Enforcement*

As Team Lead of FEMA's National Management Assistance Team East (IMAT), master's degree alumnae Deanne Criswell said the IMAT provided situational awareness to Department of Homeland Security officials and White House staff and also worked on what would be a crisis action plan should the need arise for a multi-state response.

For such pandemic outbreaks, FEMA plays a role in unifying a whole government approach by defining and clarifying roles of federal agencies involved, taking an interdisciplinary approach that incorporates the expertise of those agencies and coordinating and sharing information to federal, state and local authorities, as well as industry and private sector partners.

"Our primary responsibility is to respond to catastrophic incidents and coordinate efforts to ensure we have a unified response," Criswell said.

Some public health alumni said the outbreak showed the relevance of public health to the homeland security enterprise.

"If you do not know who your public health partners are, you need to look them up," said master's degree graduate Tammy Chamblee, Chief Nurse of Mississippi Department of Health Office of Emergency Preparedness and Response.

Related story next page >>>

FRRG Profiles CHDS Alumnae Dr. Carol A. Cunningham in First Responder Spotlight for Women's History Month

The U.S. Department of Homeland Security (DHS) Science and Technology Directorate's (S&T) First Responders Group (FRG) relies on experienced emergency response and preparedness professionals to guide its research and development efforts. The First Responder Resource Group (FRRG) fills that role. An all-volunteer working group, the FRRG helps S&T maintain focus on the top-priority needs of responders in the field. This series highlights FRRG members, offering a glimpse into their daily responsibilities, as well as their ongoing support of S&T technology development. FRRG has provided this profile of CHDS Executive Leaders Program graduate Dr. Carol Cunningham for publication in Watermark.



Dr. Carol Cunningham

"I am a firm believer in lifelong education."

Dr. Carol Cunningham has taken every opportunity to teach, learn and further her education, and has received a multitude of degrees, licensures and certifications throughout her medical career.

After initially earning a bachelor degree at Case Western Reserve University in 1982, she received her medical degree at the University of Cincinnati in 1986.

"I became involved in EMS during my emergency medicine residency while providing my service as a medical director for the Madeira/Indian Hills Fire Department. I was also intrigued and impressed by the lifesaving care that could be expediently delivered to patients during my seven years as a flight physician (four years at University of Cincinnati Hospital and three years with the Metro Health Medical Center in Cleveland)." In this role she conducted acute medical assessments and performed critical care and trauma management of pediatric, medical, surgical and obstetrical patients.

She has been an Advanced Cardiac Life Support Instructor since 1988. She completed a residency in emergency medicine at the University of Cincinnati in 1990 and became board certified in emergency medicine in 1991. She has been a Pediatric Advanced Life Support Instructor since 1994 and a Basic Trauma Life Support Advanced Instructor since 1996. She has been a Fellow, with the American College of Emergency Physicians (FACEP) since 1993 and a Fellow, with American Academy of Emergency Medicine (FAAEM) since 1994.

Specific to Emergency Medical Services (EMS), Dr. Cunningham completed the National Association of EMS Physicians' EMS Medical Director course in 1995 and the U.S. Department of Justice's Emergency Medical Technician Tactical Medical Director

course in 2001. She completed the National Preparedness Leadership Initiative at the Harvard Kennedy School and the Department of Homeland Security's Executive Leadership Program at the Center for Homeland Defense and Security in 2011.

While she was serving as the EMS medical director for multiple northeast Ohio EMS agencies in Lake County, the state medical director position at the Ohio Department of Public Safety, Division of EMS unexpectedly became available.

"After much contemplation, I thought that this would be a wonderful opportunity for me to be able to engage in an avenue of public service that could potentially expand and improve the prehospital care delivery to a large number of people. It would also provide engaged and dedicated support to EMS agencies across Ohio."

She applied for the position and was appointed in July 2004.

"I currently work in a free-standing emergency department where I am the only physician on duty. My training and previous years of experience makes me more comfortable in this practice setting compared to other physicians who require back-up support and resources immediately available."

On her influences to pursue EMS as a career

"Truthfully, my greatest influence was my father." She said he had a strong belief that, with a firm foundation of education and a commitment to public service and to our nation, one could grasp every opportunity and achieve every dream with hard work and fortitude.

"He raised me with the goal of being happy, independent, and self-sufficient without regard to race or gender. He taught me how to paint our home when I was four-years old and how to change the oil in his car when I was seven. In the same manner, he taught me how to ballroom dance in the most beautiful evening gown like royalty and to be a respectable lady. The one thing that he refused to teach me was how to think or say 'I can't.'"

"Dr. Emmett Cunningham, my godfather and favorite uncle, was also a big influence in my life and he was my lifetime advisor," she said. He was career military (Army), and following completion of his medical training, was on staff at the Louis Stokes Cleveland VA Medical Center until he retired.

Photos of her as a child highlight the day her uncle took an x-ray of a toy dog's lungs, taught her how to review it, and how to treat the dog with penicillin.

On being a female first responder

"When I started my residency in emergency medicine, not only was emergency medicine a male dominated field, it had only been formally recognized as a medical specialty by the American Board of Medical Specialties in 1979," Cunningham explained. "In fact, I had to firmly stand my ground with the dean's office when I requested to do an elective in emergency medicine as a medical student because women were uniformly being steered toward the

medical specialties of family practice, obstetrics and gynecology, pediatrics, or internal medicine.” When she first became involved in EMS, board certified female emergency physicians were rare, and female EMS medical directors were few and far between.

“I would think that any woman of my age has seen her share of gender-related challenges during her career. However, I always retain my focus solely on the patient and what is the best care that can be provided. Any negativity that does not adversely affect patient care just rolls off my back. Any negativity that adversely affects patient care, or has the potential to do so, is immediately and aggressively addressed.”

Cunningham explained that with more women in the field of EMS and emergency medicine, these negative events occur much less frequently than they did in the past.

“In my early years as a flight physician, the transferring physician would often give reports to my male flight nurse thinking that I was the nurse,” Cunningham recounted.” At the time when I was appointed state medical director, I was the only female state medical director in the country. I found it to be very strange to attend a national conference and be the only woman in the bathroom during the breaks.”

Overall, Dr. Cunningham believes that the increase in female responders has positively impacted patients as well as on the EMS system as a whole.

“Women can more freely display compassion toward others. I think male EMS providers are now more likely to add a human touch to the prehospital care they deliver as an indirect result of this change in the field’s employee demographics.” She continued, “To meet the needs of female EMS providers with families, I believe that EMS agencies have created employment policies and procedures that allow maternity and paternity leave in addition to providing support to the family structure for both men and women.”

On collaborating with peers

Cunningham’s work with the state EMS office affords her many opportunities to network with Ohio EMS providers and stakeholders, as well as healthcare system partners at the local, state, national and federal levels.

“In my role, I want to ensure that every voice in Ohio’s EMS community can be heard, and I want to serve as an instrument of positive, proactive and progressive change for our EMS system.”

She notes that collaboration removes blinders everyone inherently wears from their daily workplace practices and forces folks to view perspectives globally and to think about solutions without preset boundaries. “Collaboration is crucial because no one human being knows or has experienced everything. What works for one EMS, healthcare or emergency response system may be non-operational or incapacitating for another system.”

Another key benefit of collaboration is that it can provide a form of mentorship, as she wrote in a February 2008 article published by the Journal of Emergency Medical Services. “I have always

been a huge advocate of mentorship,” she said, “as it is the only way to secure a foundation for the future and to continue on a contemporary path of advancement.”

In her deeply personal article, she advocates for starting EMS education early, participating in school career days, and encouraging students to partner with their local response agencies. The article continues to be referenced as required reading for leadership development.

On becoming a FRRG member

A member of the DHS/Federal Emergency Management Agency National Incident Management System EMS Resource Typing and Credentialing Workgroup (now the EMS Support Team for the National Integration Center Strategic Resource Group), she was nominated by a colleague to join the FRRG in 2011.

“One of the members of the workgroup noted that I had a strong science background with some added cursory engineering courses that I completed during my undergraduate collegiate training.” That she also still ran a squad to maintain “boots on the ground” experience was an added bonus. She accepted the invitation and has served the FRRG ever since.

“Despite the knowledge that I bring, I always learn so much from the members of the FRRG with expertise that varies from my scope of practice. Everyone at the table has something valuable to contribute to the think tank of ideas. Although I receive various e-mails from the FRRG, there is no substitute for our face-to-face meetings where the dialogue is energetic, stimulating and much more in-depth than the capabilities of electronic communication.”

She highly recommends the FRRG, noting “It allows you to broaden your horizon, which has a lifelong impact.” She will be participating in the upcoming 2015 FRRG meeting.

On FRG technology development

Cunningham was consulted on several initiatives that were the result of discussions at the 2014 FRRG meeting. She has provided feedback to S&T on EMS capability gaps that will inform S&T technology development. She also continues to be a first responder subject matter expert on various topics such as self-detecting and decontaminating personal protective equipment (PPE).

As far as new technology development, she would like to see better advancement in PPE to shield and protect first responders from the dangers and hazards of their job. She also mentioned improved technology devices to provide early notification of toxins in the air and protect responders. She said it would also be helpful to have a better understanding of the long term effects of chemical exposure, as EMS cancer rates are increasing, and to find ways to better protect EMS from these potential dangers.

“My input and the input from others assisted DHS in their ability to prioritize potential projects and initiatives and to facilitate the selection of those that were most viable. I am happy and always willing to be consulted on FRG technology development in the future.”

DHS Unity of Effort Delivers Improved Critical Infrastructure Protection IT

Two master's degree graduates from the Center for Homeland Defense and Security (CHDS) were leading forces in implementing a key set of Department of Homeland Security recommendations aimed at better protecting the nation's infrastructure by delivering improved information sharing and IT at the National Protection and Programs Directorate Office of Infrastructure Protection.

The Office of Infrastructure Protection (IP) along with the Office of the Chief Information Officer signed a memorandum in December 2014 committing to a partnership that will facilitate enhanced information sharing systems and governance for security assessments of the nation's infrastructure assets.

"By having stronger governance in our IP IT programs we ensure more accountability and transparency to our mission users and their requirements for infrastructure protection," said Michael Brody, CHDS alumnus and Policy Manager with DHS Homeland Security Information Network (HSIN). "Stronger governance helps ensure users get the services they need to accomplish their mission."

Brody and fellow CHDS alumnae Christy Riccardi were lead players in the project. The review came at the behest of NPPD Assistant Secretary for IP Caitlin Durkovich. The IP Gateway serves as the single interface through which DHS mission partners can access a large range of integrated IP tools, capabilities, and information to conduct comprehensive vulnerability assessments, risk analysis, and event and incident planning.

The IP Gateway system was maturing and IP wanted to examine how it could, among other measures, share sometimes sensitive information regarding infrastructure owned by another level of government or private enterprise. IP also wanted to study how it could interface with other DHS enterprise systems and how it could better interact with HSIN, an information platform already used by the critical infrastructure community.

A comprehensive review identified key areas to be addressed, which involved interviewing about 40 key stakeholders representing federal, tribal, state and local levels of governing to determine what kind of information organizations needed from the IP Gateway system. A series of recommendations culminated in the December 14 memorandum.

Broadly, the memorandum lays out four areas of ongoing cooperation between Infrastructure Protection and OCIO:

- Increased collaboration on the use of the Homeland Security Information Network
- Expanded protected critical infrastructure information sharing
- Joint stakeholder management
- A series of coordinated development work, including simplified sign-on between HSIN and the IP Gateway

The governing body will include government and private-sector stakeholders.

"The establishment of the IP IT Governance Board as recommended through the Joint 30-Day assessment ensures future information technology investments will be supported by comprehensive policy, strategy and State, Local, Tribal, Territorial input," said CHDS master's degree graduate John McNamara, Critical Infrastructure Analyst with the New York State Division of Homeland Security & Emergency Services. "The joint assessment also functioned as a catalyst enabling IP Gateway stakeholders to identify and establish administrative requirements which support State, Local, Tribal, Territorial needs."

"During the process, synthesizing the input from the varied stakeholders provided great insight to achieving our goals," said Brody. In addition to representatives from the involved DHS components there were representatives from 10 states and one tribal nation during the review phase.



Don't mess with IT.

Michael Brody and Christine Riccardi show they are serious about delivering improved information sharing and IT at the National Protection and Programs Directorate Office of Infrastructure Protection.



The IP Gateway system includes tools to enable IP Protective Security Advisors, or onsite personnel employed by the infrastructure asset, to conduct security assessments, Riccardi noted. The Gateway system interacts with HSIN through common user identification and authentication, ensuring a secure, customized experience for each user. HSIN also compliments the IP Gateway, by sharing threat, incident, protective measures and other related information with appropriate infrastructure owners in an unclassified format.

Between the IP Gateway and HSIN, multiple stakeholder sets are served through a variety of tools and individual capabilities. For example, assessment tools are valuable to government stakeholders at all levels to collect and assess the security posture of infrastructure assets and systems. Meanwhile, government and industry partners need access to information products in a secure, collaborative environment. By managing these tools collectively at an enterprise level and in partnership with internal and external partners, such as the OCIO, IP is able to provide a comprehensive capability set in support of the critical infrastructure mission.

“By having stronger governance in our IP IT programs we ensure more accountability and transparency to our mission users and their requirements for infrastructure protection. Stronger governance helps ensure users get the services they need to accomplish their mission.”

Michael Brody
Policy Manager with DHS Homeland Security Information Network

“We can look at information needs and decide how they can be applied to more than one stakeholder and how our office can collaborate,” Riccardi said. “They are customers of these tools and their input is important and delicate.”

A CHDS education was valuable while navigating a project involving collaboration, rising above “silo thinking” and crafting complex policy, the pair agreed.

Brody cited courses on critical infrastructure protection taught by former CHDS instructor Ted Lewis and Rudy Darken as well as policy and strategic planning taught by NPS Assistant Professor Rodrigo Nieto-Gomez.

“He had us read all these great public policy and strategy books and exercise in class all the realities of implementing public policy,” Brody said. “I drew on that education a lot in looking at how to conduct the assessments and deliver meaningful recommendations that were actually implemented. It was more than a theoretical experience. I applied what I learned to meaningful outcomes.”

Riccardi credited CHDS education for including varied professions and levels of government represented in its student composition, that same type of situation she faced in conducting the review.

“Learning those softer skills of navigating through a group of diverse opinions and perspectives was valuable,” she said. “The review required the diplomacy of bringing together different stakeholders, like the CHDS classroom.”

Principal Deputy Director of National Intelligence O'Sullivan Presentation Highlights FCLP 11



Stephanie O'Sullivan,

Twenty-seven students completed the 11th iteration of the Center for Homeland Defense and Security Fusion Center Leaders Program February 2-6, which was punctuated with a presentation from Stephanie O'Sullivan, Principal Deputy Director of National Intelligence (PDDNI).

Since 2010, CHDS has hosted the week-long program that brings fusion center leaders from across the nation, and from varied levels of government, to discuss best practices and standards for the fusion center enterprise. Participants from around the country come to the NPS campus in Monterey, California, to collaborate on how to enhance management capabilities across the national network of fusion centers and enable smart practices in information sharing and leadership.

“Bringing together a diverse set of leaders through the Fusion Center Leaders Program helps foster integration, offers learning opportunities, and builds valuable partnerships,” O'Sullivan said. “These educational efforts are critical to securing our homeland.”

Program content covers the basics of fusion center operations including intelligence requirements, collection, analysis, and product distribution as well as the protection of privacy and civil liberties and other emerging issues.

“The basis of our FCLP syllabus is the Intelligence Cycle, where leaders address the entire intelligence process, affording them an opportunity to gauge whether or not their own centers are in sync,” said Robert Simeral, Naval Postgraduate School faculty member and FCLP director. “Notably, in its 2014 National Network of Fusion Centers Final Report, DHS and collaborating agencies list FCLP as among the top ten-rated federal gap mitigation activities for 2015. This tells us that FCLP is achieving what CHDS set out to do and is a great measure of effectiveness for the program.”

Renowned speaker Gordon Graham's presentation on risk assessment and leadership was popular with students.

“I think Gordon Graham's message on risk management was fascinating. Fusion centers are constantly evolving and as we're trying to keep up with requests from stakeholders,” said Nichole Splinter of the Southern Nevada Counterterrorism Center. “He reminds us that there is almost a checklist to make sure we are taking the proper precautions, doing the job right and assessing and managing any risks that come with those changes.”

Major Peter Dietzman of the Hennepin County (Minnesota) Sheriff's Office said discussions on standardization of intelligence products that are distributed along with the importance of employing checklists to ensure consistency were topics applicable to his organization.

“It was a great week of learning,” he said.

Class Notes

Alumni

Five members of the CHDS community have been selected as senior fellows at The George Washington University Center for Cyber and Homeland Security. Congratulations to **David Carabin** (MA 0701/0702, FCLP 1001), Boston Police Department; **Darrell Darnell** (FCLP 1102 and a Center founder), The George Washington University; **David Gomez** (MA 0805/0806), Tetra Tech, EMI; **John Paczkowski** (MA 0601/0602), ICF International, and **Keith Squires** (MA 0701/0702, FCLP 1101), Utah Department of Public Safety.

MA 0302/0303

Larry Greene started a new career in October 2014 at MITRE Corporation in McLean, VA., a nonprofit organization that runs Federally Funded Research and Development Centers. Larry is working for the Homeland Security Systems Engineering and Development Institute that is sponsored by DHS Science and Technology (S&T) directorate.

MA 0403/0404

Ray Guidetti was promoted to the rank of Lieutenant Colonel and named Deputy Superintendent of Investigations with the New Jersey State Police. Guidetti was formerly Executive Officer of the New Jersey Regional Operations Intelligence Center.

FDNY Deputy Chief **John Sudnik** was named Acting Chief of Operations. Sudnik is a 29-year veteran and most recently served as Manhattan Borough Commander.



MA 0501/0502

FDNY Assistant Chief **Stephen Raynis** was named Acting Chief of Training Assistant and will oversee all department training programs at the its two campuses, Randall's Island and Fort Totten. Raynis, a 33-year veteran, most recently served as Chief of Safety.

Mark Wells has been promoted to Deputy Chief with the Sacramento (California) Metropolitan Fire District.

MA0601/0602

Jeffrey Robertson was named Chief of Policy and Engagements at Joint Forces Headquarters, Department of Defense Information Network (JFHQ-DODIN), United States Cyber Command.



ELP 702

Washington, D.C., Mayor **Muriel E. Bowser**, far right, named **Gregory Dean**, second from the left, as the District's new fire chief. Dean led the Seattle Fire Department for a decade. Standing behind Dean is **Cathy Lanier**, Chief of Police, Washington, D.C., Metropolitan Police Department and Master's 0401/0402 graduate



Photo: Washington Post

MA 0703/0704

Laura Michalec-Olszewski has joined the Social Security Administration as an Administrative Law Judge.

U.S. Coast Guard LCDR **Matt Dooris** is a Certified Industrial Hygienist (CIH) as of October 2014. He anticipates returning to the Coast Guard's Marine Safety Program in Summer 2015.

MA 0803/0804

Jennifer Harper has been named Assistant Director of the New Hampshire Division of Homeland Security and Emergency Management. Harper began working at HSEM in 1991, where she has held positions including Training and Exercise Coordinator, Bio-Terrorism Coordinator, Co-Director of the Information & Analysis Center and most recently serving the Division as the Chief of Operations. She also is an alumnae of FCLP 1002.

MA 0901/0902

Dr. Keith Taylor, Sr., was appointed Assistant Commissioner of the Intelligence Bureau and Emergency Management for the New York City Department of Correction. He was previously a NYPD supervisor for 23 years, where he served as a detective investigator/supervisor; policy analyst; internal investigations supervisor; and SWAT team supervisor.

MA 0905/0906

Chris Anderson, right, was promoted to Deputy Chief with the Tucson (Ariz.) Fire Department. Anderson most recently served as a Battalion Chief.



MA 1005/1006

Andrew Phelps has been named Director of the Oregon Office of Emergency Management. He was formerly Emergency Manager for the city of Santa Fe, New Mexico.

U.S. Coast Guard Reserve LCDR **Donald B. Davis**, right, has earned Board Certification as a Physical Security Professional (PSP). Davis now holds dual certification as a CPP and International Security Professional (PSP).



Sharon Watson is the new Public Affairs and Communications Director for Johnson County, Kansas. She was formerly Public Affairs Director with the Kansas Adjutant General's Department.

ELP 1101

ELP alumnus **Michael Steinbach**, FBI Deputy Assistant Director, Counterterrorism Division, testified before House Committee on Homeland Security last week on ISIL and the threat of homegrown violent extremists in the U.S.

MA 1103/1104

Assistant Police Chief **John Bennett** retired from the Tampa (Florida) Police Department after 30 years

ELP 1201

Peter Gaynor was named director of the Rhode Island Emergency Management Agency by Governor Gina Raimondo. He formerly directed emergency management in the city of Providence, Rhode Island.



Marc Maton, left, has been appointed Chief of Police in Lemont, Illinois. He was formerly a Colonel with the Illinois State Police

MA 1201/1202

NYPD Deputy Inspector Jason Huerta is the Commanding Officer of the department's Bronx Terrorism Unit. Huerta was formerly 111th Precinct Commanding Officer.

MA 1205/1206

On February 4 President Obama nominated **Eileen Decker**, right, to be the U.S. Attorney for the Central District of California. Decker previously has served as deputy mayor for homeland security and public safety since 2009 for Los Angeles mayors Eric Garcetti and Antonio Villaraigosa.



Lt. Sam McGhee of the Aurora (Colorado) Police Department writes on information sharing post 9/11 in the recent edition of Police Chief. McGhee is a triple alumnus, having graduated from the CHDS masters, Executive Leaders and Fusion Center Leaders programs.

ELP 1301

Jim Daly of the Fire Department of New York was promoted from Deputy Assistant Chief to Assistant Chief (two star to three star) on November 13.

ELP 1302

Robert MacLean was named Chief of the U.S. Park Police. *(See full story on page 20.)*



MA 1303/1304

U.S. Secret Service Deputy Assistant Director **Ed Lowery** was part of panel discussion as part of the White House Summit on Cybersecurity and Consumer Protection at Stanford University. *(See story about Ed's APEX presentation page 9.)*

MA 1305/1306

William Hayes has been named Executive Director of the Westchester County (N.Y.) Intelligence Center. Hayes was formerly Chief of the Bedford, N.Y., Police Department.

Valli Wasp, right, has been promoted to the position of Response & Recovery Bureau Chief with the New Mexico Department of Homeland Security and Emergency Management.

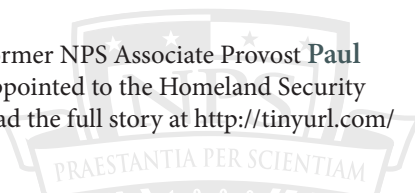


Faculty Footnotes

Dr. Erik Dahl was promoted to Associate Professor and earned faculty tenure. Dahl is the CHDS academic associate to NPS and teaches at CHDS as well as in the National Security Affairs Department.

CHDS founder and former NPS Associate Provost **Paul Stockton** has been appointed to the Homeland Security Advisory Council. Read the full story at <http://tinyurl.com/lh2jth5>.

Ryan Ellis' "Regulating Cybersecurity: Institutional Learning or a Lesson in Futility?" was published in IEES Security and Policy in the November/December 2014 issue. PDF is available on the CHDS website on Open Learning and Research/Publications by Instructors & Students page.



Homeland Security Affairs Managing Editor Continues Lifelong Interest in Policy

Growing up in the Cold War era, the new managing editor of the Center for Homeland Defense and Security journal *Homeland Security Affairs* (HSA) remembers discussing the day's events with his family, even writing a high school history paper on U.S. nuclear strategy.

"Both of my brothers were in Vietnam and my dad was in the military," said Stephen Twing during a recent phone interview from his office at Frostburg State University. "I grew up watching the nightly news with my family. My earliest memories were watching stories on the Vietnam War. I've been interested in U.S. national security policy for as long as I can remember."

Twing assumed managing editor duties at the HSA beginning with the February 2015. He takes over from Alis Gumbiner, who led the publication for its first nine years. HSA is CHDS' peer-reviewed academic publication devoted to analyzing strategies, policies and organizational structures to improve homeland security and defense in the United States.

Twing's youthful interests later evolved into a master's and a doctoral degree in International Studies from the University of South Carolina. He is currently chair of the Political Science Department at Frostburg State University in western Maryland. His appetite for academic writing was whetted while at South Carolina, where he aided in editing a textbook as a research assistant.

"It was good practical training for me," Twing recalled. "I had a lot of good mentoring there in terms of the whole publishing process and how to be successful at it."

As his academic career progressed, his interest in practical policy and analysis intensified, something that was galvanized after the 9/11 attacks. The following year, the university president requested developing counter-terrorism courses. After a research collaboration with faculty members in the Defense Analysis department at NPS, he was given an opportunity to make a presentation to Special Forces students attending the Naval Postgraduate School in that department.

"I got to interact with students and faculty and really like the nexus of the practitioner and academic at NPS," he said. "They were doing stuff that mattered in the real world. When I found out about the managing editor's job, I saw it as an opportunity to work with practitioners and academics at CHDS on an everyday basis."

Among his goals is building upon HSA's past as an effective showcase of academics at the Center. The most recent edition featured a fresh platform as well as posting executive summaries of recent master's degree theses. The HSA team is exploring new ways to host discussions on relevant topics, he added.

"Overall, my ultimate goal is to solidify the Journal's existing reputation as the home of cutting-edge research in the homeland security field," he said. My predecessor really deserves a lot of credit for starting this program. It's edifying to know I have the opportunity to support the mission of CHDS when I engage in my daily duties with the Journal."

CHDS Q & A with Stephen Twing



Stephen Twing, new managing editor of Homeland Security Affairs, the CHDS journal

Q: Which do you prefer, South Carolina peaches or California strawberries?

A: This is not a fair contest. The last time I was in Monterey, it was during strawberry season. I had no idea that it was possible to grow anything that tasted that good. Don't tell the South Carolina Ag Board, but I was never a huge fan of peaches anyway.

Q: Favorite TV news anchor of the Vietnam era – Walter Cronkite or Chet Huntley

A: I really liked Cronkite, but I was stuck watching the Huntley-Brinkley Report because my parents preferred it. What is an 8 year old kid to do in a situation like that?

Q: What book has had the greatest impact on you professionally?

A: I think it was probably David Halberstam's *Best and the Brightest*. As an undergraduate when I first read it, I wanted to emulate his brilliant writing. I still think that book captured the social, political, and bureaucratic sources of the American descent into the Vietnam quagmire better than anything else written then or since.

Q: Do you ever teach while wearing a Gamecocks visor like South Carolina football coach Steve Spurrier?

A: I've been known to spend a little time at the beginning of a class bragging on my Gamecocks after a big win (or castigating them after a big loss), but up to now I have resisted the urge to show up to class dressed like the Head Ball Coach. It probably wouldn't surprise my students if I did that one day though.

Q: If you weren't a professor, you would be ...

A: ...an intelligence analyst at CIA or DOD.

This past fall, Alis Gumbiner stepped down after nine years as Managing Editor of the *Homeland Security Affairs* journal. Alis was instrumental in the Journal's early years in taking the initial vision and making it a reality. She worked her magic behind the scenes developing *Homeland Security Affairs'* online presence, assembling the review board, working with prospective contributors, and building the readership. Her dedication to the Journal and commitment to academic excellence is reflected in every aspect of the journal's success.

Chris Bellavita
CHDS Director of Academic Programs

Executive Leaders Grad Helping International Team Bring National EOC, Emergency Management Concepts to Burma

Story courtesy of FEMA

ATLANTA – Center for Homeland Defense and Security Executive Leaders Program graduate Libby Turner was part of an international team invited late last year to help transform the nation of Burma's disaster management system into a modern, well-trained and well-equipped organization.

Turner, a federal coordinating officer with FEMA's Region IV office in Atlanta, was the lead facilitator for a five-day course on disaster management topics and helped manage instructors from five nations.

The August 2009 ELP graduate was part of an 11-member team brought together to support a priority initiative of the U.S. Forest Service International Program and the U.S. Agency for International Development/Office of U.S. Foreign Disaster Assistance.

This multinational course was held in December, 2014, in the capital city of Nay Pyi Taw and at field locations. There were presentations in three languages: English, Japanese and the native Myanmar.

The Southeast Asian nation of Burma is officially known as the Republic of the Union of Myanmar.

The USAID/OFDA program goal was to help Burma develop its first National Emergency Operations Center (EOC). To meet that goal, the course developed lessons and activities related to planning, building, equipping and managing an EOC, as well as discussions of disaster management systems.

Turner and the facilitators covered hazard and vulnerability assessments, EOC capability assessments, site selection, building design, room design, communications, information management, humanitarian architecture, management and the Incident Command System.

One of Turner's presentations used concepts developed in conjunction with another ELP graduate, Christy Grant. Grant is the branch director for FEMA's Individual Assistance program in Region 10 in Bothell, Washington.

"The workshop was extremely successful and far exceeded expectations," said Turner. "Participants were highly engaged, going out to survey potential EOC sites, and identifying needs across multiple government agencies and non-governmental organizations." They created both concepts and actual designs for a national EOC, she said.

Participants included leadership from the Union Ministry of Social Welfare, Relief and Resettlement and other government ministries and departments; officers from each branch of the military, fire services and police, and key disaster response partners

that included non-governmental organizations and the private sector. In all, there were 23 government ministries, 11 United Nations agencies, five international NGOs and three private sector organizations that attended the event.

The Union of Myanmar Parliament in 2013 passed its' first-ever "Natural Disaster Management Law" to delineate how the government would prepare for and respond to natural disasters. It was largely the result of a troubled response to Cyclone Nargis in 2008 in which 140,000 people died.

The new law creates "Work Committees" – similar to Emergency Support Functions – which are responsible for implementing response activities at the national level for both domestic and international operations. The Operations Section will coordinate international assistance from 12 UN clusters made up of NGOs, several different types of UN teams and the regional Association of Southeast Asian Nations Coordinating Center for Humanitarian Assistance and Emergency Rapid Assessment Teams.

"An important component of working in other nations is learning about and experiencing their history and culture," said Turner. "I was able to interact with people from at least a dozen different nations who were working in various capacities and organizations around the world."

"This experience has been among the highlights of my career," said Turner.



Libby Turner interviewed at the site of a recent disaster

"An important component of working in other nations is learning about and experiencing their history and culture. I was able to interact with people from at least a dozen different nations who were working in various capacities and organizations around the world."

*Libby Turner
Federal Coordinating Officer, FEMA Region IV, Atlanta, Ga.
ELP 0802*

MacLean is New Chief of U.S. Park Police



"I really challenge our employees and our partners to step back and look at what we protect as a nation, to look at our internationally recognized symbols of democracy. Those are the symbols of what we stand for as a country and as a community."

*Robert MacLean
Chief of Police, U.S. Park Police
ELP1302*

U.S. Park Police Chief Robert MacLean and approximately 700 employees he oversees are tasked with a mission that goes well beyond enforcing the law - protecting some of the nation's most cherished symbols of democracy.

A graduate of the Center for Homeland Defense and Security Executive Leaders Program and 23-year veteran of the Park Police, MacLean assumed the top post in December after serving as Deputy Chief. The agency has jurisdiction in the District of Columbia, New York City and San Francisco where officers patrol historic sites such as the Statue of Liberty, the Golden Gate Bridge National Recreation Area and monuments in the nation's capital. The Park Police is a part of the National Park Service

"I really challenge our employees and our partners to step back and look at what we protect as a nation, to look at our internationally recognized symbols of democracy," MacLean said in a recent phone interview with CHDS. "Those are the symbols of what we stand for as a country and as a community. It makes you proud of what you do when you understand what you do doesn't just impact the local community but the entire country."

The department functions like any traditional policing agency in addressing crime issues, including environmental infractions, as well as specialized units. While covering law enforcement basics, it guards treasures that by nature are high-profile targets for terrorists' attacks. MacLean has first-hand experience on what it takes to safeguard them having worked a stint as commander of the agency's Homeland Security Division tasked with its Icon Protection mission,

during which he oversaw the department's New York field office and its DC operations. The post enabled him to observe what types of measures are most effective, from using Closed Circuit Television (CCTV) to visitor screening techniques.

"The job allowed me to work in and evaluate the programs that we have in D.C. and in the New York field offices," he said. "Within that command we merged the D.C. icons and New York field office to standardize programs in both areas. It definitely prepared me for the role I'm in now."

One of the greatest challenges in that mission is communication across the disparate geographies the agency is responsible for, MacLean noted, while also communicating with the department's varied partners.

While defending national monuments, the force also fights crime in the adjacent urban park interface within its jurisdiction. Because those areas are heavily populated and multiple law enforcement agencies work nearby, interagency cooperation is indispensable.

That was illustrated during the response to the September 2013 Navy Yard shootings which saw the Park Police, D.C. Metro and D.C. Transit police agencies convening on the scene of an active shooter incident that left 12 dead. The agencies had benefitted from pre-existing relationships and previous disaster exercises.

"Our officers were among the first on scene with Metro police," MacLean noted. "It didn't matter what uniform you had on, law enforcement was addressing an active threat. You form a team despite the jurisdiction and personnel and stop that threat."

Like other law enforcement agencies post 9/11, the Park Police must also look ahead to the next emerging threat, whether a man-made terrorism event or a naturally occurring threat such as a hurricane or viral outbreak. MacLean said his job is to ensure his force is adequately equipped and cognizant of emerging terrorism perils.

"What we are doing in the current environment is asking officers to do a lot more than I did when I entered policing two decades ago," MacLean said. "The most fundamental challenge of intelligence-led policing is forecasting what that next threat is going to be while not losing focus on the other fundamentals of law enforcement."

Completing the CHDS Executive Leaders Program reinforced and expanded his view of the homeland security enterprise, especially the importance of inter-agency collaboration and viewing issues through the lens of other professions. The program also proved helpful as the National Park Service is currently evaluating a policy on Unmanned Aviation Vehicles (UAVs), an endeavor that includes multiple partners and stakeholders.

"You cannot be limited in focus to what partners you may think may be critical to your mission in protecting the homeland or the community you serve," he said. "You have to be innovative, flexible and open to unique ideas and open to cultivating relationships with organizations that may or may not be beneficial (to your mission) in the future."

Music and Tech Giants Agree: Failure is Critical to Success

Failure is not an option. It's a necessity.

Just ask record company executive Al Teller and technology entrepreneur Robi Sen. The two addressed Center for Homeland Defense and Security master's degree students in the Special Topics in Homeland Security course March 30 with just that message - adaptive learning is an essential ingredient to innovation.

"We continually introduce different kinds of perspectives to push students to think critically on different levels at all times to help them become stronger leaders and ensure their learning apertures are wide open," said CHDS faculty member Dr. Kathleen Kiernan. "We're bringing the best from across the country into the homeland security enterprise to introduce the convergence of best practices in both the public and private sectors."

During their four-hour session Teller and Sen discussed the correlation of risk and innovation and the importance of learning from shortcomings.

A Harvard Business School graduate, Teller gained insight into problem solving while adapting to technological changes as the industry shifted from vinyl records to compact discs to the digital age. At the same time, he was navigating a sometimes fickle industry in which he worked with varied acts from the Rolling Stones to Bruce Springsteen, the 80's band Fine Young Cannibals to country crooner Wynona Judd.

"With my artist and repertoire people I tell them 'you are expected to fail,'" Teller said. "You are expected to occasionally sign an artist that doesn't connect. But, I would rather you fail at the edges of where music is going rather than failing with something derivative of what is possible right now. Be spectacular in your failures. Don't fail in an ordinary, common kind of way."

For Sen, missteps should be controlled and purposeful, as well as being mission-guided. For start-up companies so often resource-constrained and facing hurdles, a culture that nurtures acceptance of letdowns is critical to survival.

"There is always some risk, but if you try to remove risk you cannot innovate," Sen noted. "Innovation requires that sense of urgency. The current opinion of startup experts is that you want to fail often and fail frequently, and fail small so you can quickly learn and adapt and continue moving forward."

Innovation also requires sound decision-making in a fast-moving and uncertain environment. During his class presentation Teller challenged students to engage in what he calls "Whole Brain Thinking," a concept he finds necessary to finding solutions to complex matters. Too often, he said, leaders try to manage problems by viewing them flatly through their comfort-lens or, worse, "pressing your nose harder and harder into the wall" without varying one's point of view.

"If people conscientiously try changing their perspective as they



L to R: Al Teller, Kathleen Kiernan and Robi Sen

look at a specific problem I think they would find a path to the solution comes a lot easier. And, maybe, the solution becomes more robust, more interesting and, ultimately, a lot more effective."

Clearly, change and risk take on different meanings in the public sector that is inherently risk-averse than in the private sector, as both men acknowledged. But they likened the intensity and motivation of entrepreneurs to the mind-set of the CHDS student composition, who excel in their profession and are driven to seek higher education within their already demanding schedules.

"They are the kind of people who are similar to founders and entrepreneurs," Sen observed. "They are folks who see something about the world and they want to really have a positive impact. My talk was really about how these folks that are in government can bring a lot of the ideas from the commercial sector about how to create innovative change."

Teller agreed: "Change in those organizations has an additional degree of difficulty than change in the private sector. If one individual takes a larger perspective in terms of problem-solving approaches and finds a kindred soul, and they in turn find another kindred soul, over time you can change an institutional attitude and implement changes that would be important and productive. That is a process that takes time to evolve."

"Be spectacular in your failures. Don't fail in an ordinary, common kind of way."

Al Teller, Record Company Executive

"The current opinion of startup experts is that you want to fail often and fail frequently, and fail small so you can quickly learn and adapt and continue moving forward."

Robi Sen, Technology Entrepreneur



CHDS caught up with alumni across the nation. Clockwise from the top left: Austin, Dallas, and San Antonio, Texas, Madison, Wisconsin, and the Chicago, Illinois, area - during tornado warnings no less!



Blizzards, cancelled flights, sleet and ice - nothing keeps Richard Bergin, David O'Keeffe, Jodi Stiles and Greta Marlatt from getting to West Virginia for a National Capital Region cohort.

CHDS Photo Album



Captured! The ladies of cohort 1306-1306 are tough, Reggie, you should have brought your gun.



Steve Sund was in Paris with his NYC brothers in blue at the memorial to the 17 victims killed by terrorists over three days across Paris. Three French police officers were among the fatalities.



Wild Card

CHDS Debut at San Francisco St. Patrick's Day Parade

A full cohort of Center for Homeland Defense and Security master's degree students joined a handful of staffers in marching in the San Francisco St. Patrick's Day Parade.

This year marked the 164th year for what is billed as the largest St. Patrick's Day event on the West Coast and draws about 100,000 people.

"It brings good publicity to homeland security and to CHDS," said student Frank Leeb, a Battalion Chief with the New York City Fire Department who initiated the Center's first time participation. "Secondly, we have so many non-uniformed people in homeland security, they are like unseen heroes. Fire and police, we are always in parades."

The extracurricular activity reinforces the bond among the cohort's students as well as offering an opportunity to network with several alumni who joined the march.

"The fact the alumni were invited gave us a nice opportunity to network, not just with our cohort but with other cohorts as well," Leeb added.



From the top: Lining up, New York City contingent includes parade participation instigator FDNY Battalion Chief Frank Leeb, left, Kathleen O'Reilly, NYPD Assistant Chief, center, and FDNY Lieutenant Timothy Carroll on the right, City Hall where the parade concluded, sporting the green, and greeting the crowd on Market Street.

KUDOS AND CONNECTIONS



Master's cohort 1303/1304 celebrates graduation day with their OC Scott Martis

Master's Cohort 1303/1304
 Master's Cohort 1305/1306
 Executive Leaders Program 1401
 Pacific Executive Leaders Program 1501
 Pacific Executive Leaders Program 1502
 Fusion Center Leaders Program 1403
 Fusion Center Leaders Program 1501
 Radiological Emergency Preparedness Program 1501



Master's cohort 1305/1306 commemorates their graduation day with their official class photo in front of Herrmann Hall

Congratulations to our newest
CHDS graduates and welcome to
the ranks of CHDS Alumni!



FEMA



Pacific ELP 1501, above, and Pacific ELP 1502, left, gather for photos during their CHDS experience

Educational Resources

Don't forget you still have access to these valuable research and information resources:

Homeland Security Digital Library

The Homeland Security Digital Library (HSDL) is the nation's premier collection of documents related to homeland security policy, strategy, and organizational management. Visit this online resource at www.hsdl.org.

Self-study Courses

Non-credit, online self-study courses, derived from the NPS CHDS Master's degree curriculum, are available to homeland defense and security professionals who wish to enhance their understanding of key homeland security concepts and who require the flexibility of self-paced instruction. Find self-study courses on the CHDS website home page at www.chds.us.

Homeland Security Affairs Journal

Homeland Security Affairs is the peer-reviewed online journal of the CHDS, providing a forum to propose and debate strategies, policies, and organizational arrangements to strengthen U.S. homeland security. CHDS instructors, participants, alumni, and partners represent the leading subject matter experts and practitioners in the field of homeland security. Read the Journal at www.HSAJ.org.

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WWW.CHDSA.ORG

CHDS Association Launches Website

The CHDS Association is now online. Alumni and other supporters of homeland security education can visit the Association at www.chdsa.org. The Association was established earlier this year by alumni of the Center for Homeland Defense and Security to support the advancement of the homeland security enterprise and public safety through educational and professional activities. It partners with CHDS on activities like the annual APEX workshop to promote the development of a productive alumni network for attendees of CHDS programs. The Association is an independent 501(c)(3) nonprofit organization not affiliated with any government entity. Visitors to www.chdsa.org can learn more about the organization's mission, make online tax deductible donations, and order clothing and accessories with the NPS CHDS alumni logo.

Why is this magazine titled Watermark?

The word watermark suggests a distinguishing mark, visible when held up to the light. Watermarks are used for authentication, have security applications, and indicate a high point of achievement. They are also used to make a permanent mark to create a lasting impression. A watermark is an appropriate symbol and title for this magazine, which is designed to recognize the collaborative efforts, successes, and achievements of both alumni, instructors and faculty.

Watermark is produced by the staff of Center for Homeland Defense and Security with support from CHDS alumni, instructors and faculty. Feature articles are written by Brian Seals. Layout and cover photos by Deborah Rantz. Center for Homeland Defense and Security is supported through contracts with VRC Inc. and MAC Consulting Inc. Government status employment is not implied or denoted by inclusion in this publication.



Francis McComas was a Tasmanian born artist who came to Monterey in 1898. He was a very successful watercolorist and became well known for his landscapes of the Monterey Peninsula.

The map above was commissioned for the lobby of the Hotel Del Monte and painted in 1932 by McComas. The original 17 Mile Drive was an excursion from the hotel to the 7,000-acre Hotel Del Monte Park Reservation, now known as the Pebble Beach Resort. A well known, and confirmed, urban legend says McComas had a run in with the police department of Pacific Grove, and purposely left the city off the map, noting it's location as Moss Beach.

This mural is still on display in the lobby of what is now Herrmann Hall, formerly the historic Hotel Del Monte.



Watermark
The Alumni Magazine of
Center for Homeland
Defense and Security